

IN THE CLAIMS

1. (original) A method for completing an unconsolidated interval, including particulates, in a subterranean formation, including the step of consolidating said interval by injecting an aqueous solution of colloidal particles and of at least one element selected from the group consisting of a pH modifier and/or an ionic-strength modifier to form a hard gel that holds the particulates together and then, the step of hydraulically fracturing the consolidated interval.
2. (original) The method of claim 1, wherein said colloidal particles are charged.
3. (original) The method of claim 1, wherein said colloidal particles have an average diameter between 4 and 100 nm.
4. (original) The method of claim 3, wherein said colloidal particles have an average diameter between 4 and 22 nm.
5. (original) The method of claim 1, wherein said colloidal particles are silica particles.
6. (original) The method of claim 5, wherein said colloidal silica solutions used for this invention contained between 2 and 50 weight percent of silica.
7. (original) The method of claim 6, wherein said colloidal silica solutions used for this invention contained between 25 and 50 weight percent of silica.
8. (original) The method of claim 5, wherein said colloidal particles are charged.
9. (currently amended) The method of claim 5, wherein said colloidal silica solutions ~~may~~ contain ethylene glycol, propylene glycol or methanol at a concentration ~~comprised between about~~ 0.1 and 10 weight percent.
10. (currently amended) The method of claim 9, wherein said colloidal silica solutions ~~may~~ contain ethylene glycol, propylene glycol or methanol at a concentration ~~comprised between about~~ 0.1 and 5 weight percent.
11. (original) The method of claim 1, wherein the consolidated interval has compressive strength greater than 250 psi.
12. (original) The method of claim 1, wherein said interval is open-hole.

13. (original) The method of claim 1, wherein said interval is cased hole and perforated.
14. (original) The method of claim 1, wherein the ionic-strength modifier is a brine.
15. (original) The method of claim 1, wherein the pH modifier is an acid.
16. (original) The method of claim 1, wherein the pH modifier is a base.
17. (original) The method of claim 1, wherein the concentration of the pH modifier and/or of the ionic strength modifier is comprised between 0.1 and 5 wt%.
18. (original) The method of claim 17, wherein the concentration of the pH modifier and/or of the ionic strength modifier is comprised between 0.1 and 1.5 wt%.
19. (original) The method of claim 1, wherein the area to be consolidated has a depth of between about 15 and about 90 cm.
20. (original) The method of claim 1, wherein in the step of hydraulically fracturing, the fracture is designed to have a length greater than about twice the depth of the consolidated interval.
21. (currently amended) The method of claim 1, further comprising holding over a time period after injecting the consolidation fluid~~treatment following a hesitation scheme, whereby zones of higher permeability are consolidated.~~
22. (currently amended) The method of claim 1, wherein the volume of injected consolidated fluids is between about 2 times and about 10 times the volume of the pores of the formation to be consolidated.
23. (original) A method for completing an unconsolidated interval, including particulates, in a subterranean formation, including the step of consolidating said interval by injecting into said interval an aqueous solution of colloidal silica, of micrometric particles, of a pH modifier and/or of an ionic-strength modifier to form a hard gel that holds the particulates together and then, the step of hydraulically fracturing the consolidated interval.
24. (original) The method of claim 23, wherein said micrometric particles are selected from the group consisting of mica, precipitated silica, silica fumes, non-swelling clay and starch.

25. (original) The method of claim 23, wherein said micrometric particles having 80% of their particle sizes ranging between about 1 and about 60 μm .